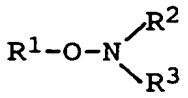
Claims

1. Stabilized aqueous solution of a coenzyme for hydrogen-transferring enzymes characterized in that the solution contains NAD, NADP or a derivative thereof in an oxidized or reduced form and one or several organic compounds or salts thereof having a pKa value between 1.5 and 6.0 and/or a nitrogen compound of the general formula (I)



(I)

in which the residues R^1, R^2 and R^3 are the same or different and denote hydrogen, or a saturated or unsaturated alkyl or aryl group.

2. Stabilized solution as claimed in claim 1, characterized in that it contains an acid or a salt thereof with a buffering action in the pH range of 1.0 to 7.0 as the organic compound.

3. Stabilized solution as claimed in claim 1 or 2, characterized in that it contains citric acid or a citrate salt.

4. Stabilized solution as claimed in claim 3, characterized in that it contains ca. 5 to 500 mM citric acid or a citrate salt.

5. Stabilized solution as claimed in one of the claims 1 to 4, characterized in that the pH value of the solution is between 1.0 and 7.0.

6. Stabilized solution as claimed in one of the claims 1 to 5 containing a hydroxyl, O- or N-alkyl-hydroxyl, O-benzylhydroxylamine and/or boric acid derivative.

7. Stabilized solution as claimed in claim 6, characterized in that it contains a hydroxylamine derivative at a concentration between 2 and 300 mM.

8. Method for determining a hydrogen-transferring analyte or a corresponding dehydrogenase in the presence of a hydrogen-accepting coenzyme characterized in that the coenzyme is contained in a stabilized aqueous solution as claimed in claims 1 to 7.

9. Method for the determination as claimed in claim 8, characterized in that the analyte lactate, glutamate, ammonia, alcohol, glyceraldehyde-3-phosphate or glucose is determined in the presence of a lactate, glutamate, alcohol, glycerol-3-phosphate or glucose dehydrogenase.

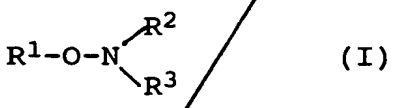
10. Method as claimed in one of the claims 8 or 9, wherein the pH value is in a range of 8.5 to 10.0 and the final concentration of citrate salt, boric acid and/or hydroxylamine derivative is in each case between 2 and 50 mM.

11. Kit for determining a hydrogen-transferring analyte in a sample comprising the following components:

- a first reagent which contains a dehydrogenase in a suitable system buffering between pH 8.5 and 10.0

and

- a second reagent which contains a coenzyme for hydrogen-transferring enzymes and an organic compound having a pKa value between 1.5 and 6.0 and/or a nitrogen compound of the general formula (I)



(I)

in which the residues R^1, R^2 and R^3 are the same or different and denote hydrogen, or a saturated or unsaturated alkyl or aryl group.

12. Kit for determining the enzyme activity of a dehydrogenase in a sample comprising the following components:

- a first reagent which contains a hydrogen-transferring analyte in a suitable system buffering between pH 8.5 and 10.0

and

- a second reagent which contains a coenzyme for hydrogen-transferring enzymes and an organic compound having a pKa value between 2.0 and 4.0 and/or a hydroxylamine derivative of the general formula (I) as claimed in claim 11.

13. Kit as claimed in claim 11 or 12, characterized in that the second reagent contains citric acid, a citrate salt, a boric acid and/or hydroxylamine derivative.

14. Kit as claimed in claim 11 or 12, characterized in that the first reagent contains a boric acid derivative and the second reagent contains citric acid, a citrate salt and/or a hydroxylamine derivative.

15. Kit as claimed in claim 11 to 14, characterized in that the second reagent has a pH value between 1.0 and 7.0.

16. Kit as claimed in one of the claims 11 to 15, characterized in that the second reagent has a pH value of about 3.0.

17. Kit as claimed in one of the claims 11 to 16, characterized in that the first or second reagent contains approximately 5 to 200 mM of a citrate salt, about 2 to 300 mM of a boric acid derivative and/or 2 to 300 mM of a hydroxylamine derivative.

Add A1 add B2